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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,079	04/15/2002	Steffen Setzer	7195	5702

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EXAMINER	
KOSTAK, VICTOR R	
ART UNIT	**PAPER NUMBER**
2622	

MAIL DATE	DELIVERY MODE
08/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/030,079	SETZER ET AL	
	Examiner	Art Unit	
	Victor R. Kostak	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1,2 and 4-15 is/are rejected.

7)☒ Claim(s) 3 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 15 April 2002 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 04/15/02.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Note MPEP 606.01.

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

3. Claims 13-15 are objected to because of the following informalities: the phrase "*claim 1*" recited in the first line of claim 13 should be deleted. Applicant apparently intended to delete

the phrase to recite a new independent apparatus claim, and it has been treated as such.

Appropriate correction is required.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 11 and 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 is indefinite because there is no definite "*typical*" television frequency. There are at least two standard analog frequencies (i.e. frames rates) that are different from each other (i.e. NTSC and PAL frequencies), and other different line frequencies in those and other known formats.

Regarding claim11, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

The terms "*film-like*" and "*sheet-like*" in claim 14 are relative terms which render the claim indefinite. The terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

In what manner and to what extent the claimed element is "*film-like*" or "*sheet-like*" is not clearly defined, since the suffix "*-like*" implies a similarity between objects, yet no express and specific characteristics are described. (See MPEP 2173.05(b)E).

Also in claim 14, the phrase *influenceable in an optically defined way"* is ambiguous to the extent that the scope is not defined (and *"influenceable"* is not a word).

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims rejected under 35 U.S.C. 102(e) as being anticipated by Thomas (cited by applicant, # GB 2321565).

The image processing system of Thomas (noting particularly Figs. 2, 3a and 3b) involves separating foreground object data from a background data set by keying (stage 9 in fig. 2), and altering the background 3 to be recorded (scanned, stored) and subsequently replaced by a second background 11. The background 3 is altered by tuning (matching) the frequency of the background (by strobing) to the frequency of the camera (page 15 line 13 – page 16 line 1), thereby meeting claims 1 and 13.

As for claim 2, the altering involves a switching procedure (strobing) between on/off states (noting again page 15 lines 13-18).

As for claim 4, Thomas also includes additional parameters besides brightness to alter the background, including color (page 16 lines 2-12).

Regarding claims 5 and 6, the recording (scanning) frequency of the camera is a multiple of the playback (display) frequency of the PAL rate of 25 Hz (noting page 15 lines 23-28 and page 16 lines 2-6).

As for claim 14 (as best understood), the background screen 3 assumes a sheet-like appearance, at least in its general flat form, and influences the scanning procedure by virtue of it providing the camera 5 with photo-optic data (ultimately converted into electrical signals by the camera).

Addressing claim 15, the background elements used by Thomas in the screen 3 is electroluminescent as it reacts to light reflected thereon (page 17 line 5 to the end of the specification which describes multiple variations).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (the same as that above) in view of Lee.

Thomas does not disclose the keying process in any detail (i.e. the overlaying of the foreground over the substitute background imagery), but does disclose that the scanned background (screen 3) is replaced by the keyed background 11. Thomas discloses that the background 3 is altered by tuning (matching) the frequency of the background (by strobing) to the frequency of the camera in order to differentiate between the foreground and background

(noting again page 15 line 13 – page 16 line 1). Although he does not expressly specify that a comparison is made, it would nonetheless have been obvious to skilled artisan to realize that some type of comparison would be needed to distinguish between the differently scanned foreground and background areas before the keying is applied, such as is done by Lee (Fig. 1), who identifies and distinguishes between foreground and background data using a comparator (stage 106).

As for claim 8, the comparison would accordingly be made between data that is spatially the same but different in time, in a subtractive operation, which provides the comparison results.

As for claims 9 and 10, the data units comprising the images are pixels, and groups of pixels comprise image regions defining the image objects.

7. Claim11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (the same as that above) in view of Chen et al.

It would also have been obvious to one of ordinary skill in the art to use neural networks to distinguish foreground from background data, as disclosed by Chen (Fig. 3), for the benefit of accounting for changing objects as the real time scene progresses.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Both Dolgoff and Driskell are of particular relevance to the claims as well as to the disclosure.

9. Claim 3 appears allowable over the prior art.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor R. Kostak whose telephone number is (571) 272-7348. The examiner can normally be reached on Monday - Friday from 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, Virginia 22313-1450

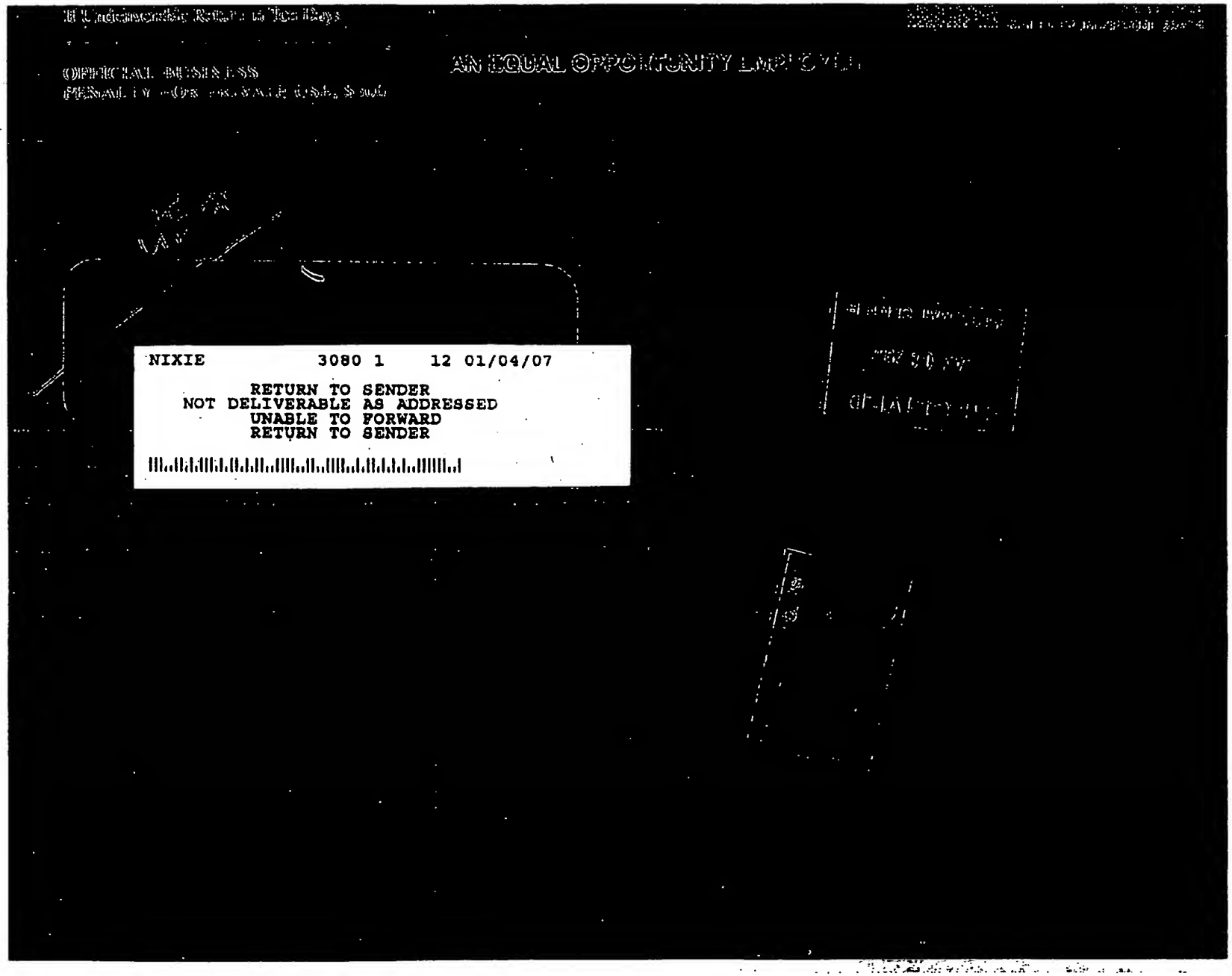
Or faxed to:

(571) 273-8300

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office whose telephone number is (703) 308-HELP.

Victor R. Kostak
Primary Examiner
Art Unit 2622

VRK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